

07/03/01  
J1132 U.S. PTO

# UTILITY PATENT APPLICATION TRANSMITTAL

Attorney Docket No.	02578.0006.CPUS01
First Inventor	Scott A. Chalmers and Randall S. Geels
Title	Method And Apparatus For High-Speed Thickness Mapping Of Patterned Thin Films
Express Mail Label No.	EL557885532US

(Only for new nonprovisional applications under 37 CFR 1.53(b))

APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents.</i>	ADDRESS TO: Commissioner for Patents Box Patent Application Washington, DC 20231
1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g. PTO/SB/17) <i>(Submit an original, and a duplicate for fee processing)</i>	7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program <i>(Appendix)</i>
2. <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	8. <input type="checkbox"/> Nucleotide and/or Amino Acid Sequence Submission <i>(if applicable, all necessary)</i>
3. <input checked="" type="checkbox"/> Specification <i>(preferred arrangement set forth below)</i> [Total Pages <b>29</b> ]	a. <input type="checkbox"/> Computer Readable Form (CRF)
- Descriptive title of the Invention	b. <input type="checkbox"/> Specification Sequence Listing on:
- Cross Reference to Related Applications	i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or
- Statement Regarding Fed sponsored R & D	ii. <input type="checkbox"/> paper
- Reference to sequence listing, a table, or a computer program listing appendix	c. <input type="checkbox"/> Statements verifying identity of above copies
- Background of the Invention	
- Brief Summary of the Invention	
- Brief Description of the Drawings <i>(if filed)</i>	
- Detailed Description	
- Claim(s)	
- Abstract of the Disclosure	
4. <input checked="" type="checkbox"/> Drawing(s) <i>(35 U.S.C. §113)</i> [Total Pages <b>13</b> ]	
5. <input type="checkbox"/> Oath or Declaration [Total Pages ]	
a. <input type="checkbox"/> Newly executed (original or copy)	
b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) <i>(for continuation/divisional with Box 17 completed)</i>	
i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)	
6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76	

### ACCOMPANYING APPLICATION PARTS

9. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))	
10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of Attorney <i>(where there is an assignee)</i>	
11. <input type="checkbox"/> English Translation document (if applicable)	
12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations	
13. <input type="checkbox"/> Preliminary Amendment	
14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <i>(Should be specifically itemized)</i>	
15. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i>	
16. <input type="checkbox"/> Request and Certification under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.	
17. <input type="checkbox"/> Other	

18. If a **CONTINUING APPLICATION**, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

<input type="checkbox"/> Continuation	<input type="checkbox"/> Divisional	<input checked="" type="checkbox"/> Continuation-in-part (CIP)	of prior application No: 09.611,219
---------------------------------------	-------------------------------------	--	-------------------------------------

Prior application information: Examiner To be assigned Group / Art Unit: 2877

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. This incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

### 19. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number or Bar Code Label	22930	or <input type="checkbox"/> Correspondence address below
Name	Robert C. Laurenson	
Address	Howrey Simon Arnold & White, LLP 301 Ravenswood Avenue, Box 34	
City	Menlo Park	State CA Zip Code 94025
Country	USA	Telephone (858) 622-5100 Fax (650) 463-8400

Name (Print/Type)	Robert C. Laurenson	Registration No. (Attorney/Agent)	34,206
Signature	<i>Robert C. Laurenson</i>	Date	July 3, 2001

07/03/01  
31132 U.S. PTO

07-05-01

A

Howrey Doc No. 02578.0006.CPUS01  
Express Mail No. EL 557885532US

**HOWREY SIMON ARNOLD & WHITE, LLP**  
301 Ravenswood Avenue, Box No. 34  
Menlo Park, CA 94025  
(858) 622-5100

JC971 U.S. PTO  
09/899383  
07/03/01

**Box Patent Application**  
COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

Re: New U.S. Non-Provisional Utility Patent Application  
**Continuation-in-Part of U.S. Application No. 09/611,219, filed July 6, 2000**  
For: **Method And Apparatus For High-Speed Thickness Mapping Of Patterned Thin Films**  
Inventors: Scott A. Chalmers and Randall S. Geels  
Our Ref: 02578.0006.CPUS01

Sir:

Transmitted herewith for filing under 37 C.F.R. § 1.53(b) is a continuation-in-part application of prior Application No. 09/611,219, consisting of the following documents:

1. Utility Patent Application Transmittal Form (PTO/SB/05);
2. Patent Application consisting of 29 pages, to include 6 pages of claims and 1 page abstract;
3. Figures 1 through 11, consisting of 13 sheets;
4. Fee Transmittal Form (PTO/SB/17);
5. Form PTO-1082; and
6. Return postcard.

It is respectfully requested that the enclosed return postcard be stamped with the filing date and unofficial application number and returned to this office as soon as possible.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. **08-3038** referencing docket number 02578.0006.CPUS01.

Respectfully submitted,



Robert C. Laurenson, Reg. No. 34,206

Date: July 3, 2001

09899383-070301

**FEE TRANSMITTAL  
for FY 2001**

Patent fees are subject to annual revision.

Complete if known

Express Mail Label No.	EL557885532US	Application Number	
TOTAL AMOUNT OF PAYMENT	\$584	Filing Date	
		First Named Inventor	Scott A. Chalmers
		Examiner Name	
		Group Art Unit	
		Attorney Docket No.	02578.0006.CPUS01

METHOD OF PAYMENT		FEE CALCULATION (continued)																																																																																																																																																																																								
<b>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:</b> Deposit Acct. No. <b>08-3038</b> Deposit Account Name <b>Howrey Simon Arnold &amp; White, LLP</b> <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17 <input checked="" type="checkbox"/> Applicant claims small entity status. See CFR 1.27.		<b>3. ADDITIONAL FEES</b> <table border="1"> <thead> <tr> <th>Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge—late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge—late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner Action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner Action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>390</td><td>216</td><td>195</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>890</td><td>217</td><td>445</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,390</td><td>219</td><td>695</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,890</td><td>228</td><td>945</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>310</td><td>219</td><td>155</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>310</td><td>220</td><td>155</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>270</td><td>221</td><td>135</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,240</td><td>241</td><td>620</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,240</td><td>242</td><td>620</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>440</td><td>243</td><td>220</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>600</td><td>244</td><td>300</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>240</td><td>126</td><td>180</td><td>Submission of Information Disclosure Statement</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>710</td><td>246</td><td>355</td><td>Filing a submission after final rejection (37 CFR §1.129(a))</td><td></td></tr> <tr><td>149</td><td>710</td><td>249</td><td>355</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td>179</td><td>710</td><td>279</td><td>355</td><td>Request for Continued Examination (RCE).</td><td></td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr><td colspan="5">Other fee (specify) _____</td></tr> <tr> <td colspan="4"> <b>SUBTOTAL (3)</b> </td> <td> <b>(\$)</b> 0.00         </td> </tr> </tbody> </table>		Fee Code	Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge—late filing fee or oath		127	50	227	25	Surcharge—late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner Action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner Action		115	110	215	55	Extension for reply within first month		116	390	216	195	Extension for reply within second month		117	890	217	445	Extension for reply within third month		118	1,390	219	695	Extension for reply within fourth month		128	1,890	228	945	Extension for reply within fifth month		119	310	219	155	Notice of Appeal		120	310	220	155	Filing a brief in support of an appeal		121	270	221	135	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,240	241	620	Petition to revive - unintentional		142	1,240	242	620	Utility issue fee (or reissue)		143	440	243	220	Design issue fee		144	600	244	300	Plant issue fee		122	130	122	130	Petitions to the Commissioner		123	50	123	50	Petitions related to provisional applications		126	240	126	180	Submission of Information Disclosure Statement		581	40	581	40	Recording each patent assignment per property (times number of properties)		146	710	246	355	Filing a submission after final rejection (37 CFR §1.129(a))		149	710	249	355	For each additional invention to be examined (37 CFR § 1.129(b))		179	710	279	355	Request for Continued Examination (RCE).		169	900	169	900	Request for expedited examination of a design application		Other fee (specify) _____					<b>SUBTOTAL (3)</b>				<b>(\$)</b> 0.00
Fee Code	Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																						
105	130	205	65	Surcharge—late filing fee or oath																																																																																																																																																																																						
127	50	227	25	Surcharge—late provisional filing fee or cover sheet																																																																																																																																																																																						
139	130	139	130	Non-English specification																																																																																																																																																																																						
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination																																																																																																																																																																																						
112	920*	112	920*	Requesting publication of SIR prior to Examiner Action																																																																																																																																																																																						
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner Action																																																																																																																																																																																						
115	110	215	55	Extension for reply within first month																																																																																																																																																																																						
116	390	216	195	Extension for reply within second month																																																																																																																																																																																						
117	890	217	445	Extension for reply within third month																																																																																																																																																																																						
118	1,390	219	695	Extension for reply within fourth month																																																																																																																																																																																						
128	1,890	228	945	Extension for reply within fifth month																																																																																																																																																																																						
119	310	219	155	Notice of Appeal																																																																																																																																																																																						
120	310	220	155	Filing a brief in support of an appeal																																																																																																																																																																																						
121	270	221	135	Request for oral hearing																																																																																																																																																																																						
138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																																						
140	110	240	55	Petition to revive - unavoidable																																																																																																																																																																																						
141	1,240	241	620	Petition to revive - unintentional																																																																																																																																																																																						
142	1,240	242	620	Utility issue fee (or reissue)																																																																																																																																																																																						
143	440	243	220	Design issue fee																																																																																																																																																																																						
144	600	244	300	Plant issue fee																																																																																																																																																																																						
122	130	122	130	Petitions to the Commissioner																																																																																																																																																																																						
123	50	123	50	Petitions related to provisional applications																																																																																																																																																																																						
126	240	126	180	Submission of Information Disclosure Statement																																																																																																																																																																																						
581	40	581	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																																						
146	710	246	355	Filing a submission after final rejection (37 CFR §1.129(a))																																																																																																																																																																																						
149	710	249	355	For each additional invention to be examined (37 CFR § 1.129(b))																																																																																																																																																																																						
179	710	279	355	Request for Continued Examination (RCE).																																																																																																																																																																																						
169	900	169	900	Request for expedited examination of a design application																																																																																																																																																																																						
Other fee (specify) _____																																																																																																																																																																																										
<b>SUBTOTAL (3)</b>				<b>(\$)</b> 0.00																																																																																																																																																																																						
<b>2. <input type="checkbox"/> Payment Enclosed:</b> <input type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money <input type="checkbox"/> Other																																																																																																																																																																																										
<b>FEE CALCULATION</b> <b>1. BASIC FILING FEE</b> <table border="1"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>101</td><td>710</td><td>201</td><td>355</td><td>Utility filing fee</td><td>355</td></tr> <tr><td>106</td><td>320</td><td>206</td><td>160</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>490</td><td>207</td><td>245</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>710</td><td>208</td><td>355</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>150</td><td>214</td><td>75</td><td>Provisional filing fee</td><td></td></tr> <tr> <td colspan="5"><b>SUBTOTAL (1)</b></td> <td><b>(\$)</b> 355</td> </tr> </tbody> </table>		Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	101	710	201	355	Utility filing fee	355	106	320	206	160	Design filing fee		107	490	207	245	Plant filing fee		108	710	208	355	Reissue filing fee		114	150	214	75	Provisional filing fee		<b>SUBTOTAL (1)</b>					<b>(\$)</b> 355																																																																																																																																															
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																					
101	710	201	355	Utility filing fee	355																																																																																																																																																																																					
106	320	206	160	Design filing fee																																																																																																																																																																																						
107	490	207	245	Plant filing fee																																																																																																																																																																																						
108	710	208	355	Reissue filing fee																																																																																																																																																																																						
114	150	214	75	Provisional filing fee																																																																																																																																																																																						
<b>SUBTOTAL (1)</b>					<b>(\$)</b> 355																																																																																																																																																																																					
<b>2. EXTRA CLAIM FEES</b> <table border="1"> <thead> <tr> <th>Total Claims</th> <th>Extra Claims</th> <th>Fee from below</th> <th>Fees Paid</th> </tr> </thead> <tbody> <tr> <td>41</td> <td>-20**= 1</td> <td>9</td> <td>189</td> </tr> <tr> <td>Independent Claims</td> <td>4</td> <td>-3**= 1</td> <td>40</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Total Claims	Extra Claims	Fee from below	Fees Paid	41	-20**= 1	9	189	Independent Claims	4	-3**= 1	40	Multiple Dependent																																																																																																																																																																												
Total Claims	Extra Claims	Fee from below	Fees Paid																																																																																																																																																																																							
41	-20**= 1	9	189																																																																																																																																																																																							
Independent Claims	4	-3**= 1	40																																																																																																																																																																																							
Multiple Dependent																																																																																																																																																																																										
<table border="1"> <thead> <tr> <th>Large Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>80</td><td>202</td><td>40</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>270</td><td>204</td><td>135</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>80</td><td>209</td><td>40</td><td>**Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>**Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr> <td colspan="5"><b>SUBTOTAL (2)</b></td> <td><b>(\$)</b> 229</td> </tr> </tbody> </table>		Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	103	18	203	9	Claims in excess of 20		102	80	202	40	Independent claims in excess of 3		104	270	204	135	Multiple dependent claim, if not paid		109	80	209	40	**Reissue independent claims over original patent		110	18	210	9	**Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (2)</b>					<b>(\$)</b> 229																																																																																																																																															
Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																																					
103	18	203	9	Claims in excess of 20																																																																																																																																																																																						
102	80	202	40	Independent claims in excess of 3																																																																																																																																																																																						
104	270	204	135	Multiple dependent claim, if not paid																																																																																																																																																																																						
109	80	209	40	**Reissue independent claims over original patent																																																																																																																																																																																						
110	18	210	9	**Reissue claims in excess of 20 and over original patent																																																																																																																																																																																						
<b>SUBTOTAL (2)</b>					<b>(\$)</b> 229																																																																																																																																																																																					

\*\*or number previously paid, if greater; For Reissues, see above

SUBMITTED BY		Complete (if applicable)			
Name (Print/Type)	Robert C. Lauranson	Registration No. (Attorney/Agent)	34,206	Telephone	(858) 622-5100
Signature	<i>Robert C. Lauranson</i>	Date	July 3, 2001		

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time

FORM PTO-1082

HOWREY SIMON ARNOLD & WHITE, LLP  
Box No. 34  
1299 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004-2402  
(202) 783-0800

**Box Patent Application**  
COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of **Scott A. Chalmers and Randall S. Geels** for **METHOD AND APPARATUS FOR HIGH-SPEED THICKNESS MAPPING OF PATTERNED THIN FILMS**.

Also, enclosed are:

1. Utility Patent Application Transmittal
2. Utility Application
3. Drawings
4. Reply Postcard

	(Col. 1)	(Col. 2)
FOR	NO. FILED	NO. EXTRA
BASIC FEE		
TOTAL CLAIMS	41 - 20 =	21
INDEP. CLAIMS	4 - 3 =	1
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENTED		

\*If the difference in Col. 1 is less than zero, enter "0" in Col. 2

SMALL ENTITY		OTHER THAN A SMALL ENTITY		
RATE	FEE	OR	RATE	FEE
	\$ 355.00	OR		\$ 0.00
x 9 =	189.00	OR	x 18 =	0.00
x 40 =	40.00	OR	x 78=	0.00
+ 130 =	.00	OR	+ 260 =	0.00
TOTAL	\$584.00	OR	TOTAL	\$0.00

This application is being filed under 37 C.F.R. §1.53(b)(1) without declaration and filing fee.

Date: July 3, 2001

HOWREY SIMON ARNOLD & WHITE, LLP



Robert C. Laurenson, Reg. No. 34,206